

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**REVOCATION AND SUBSTITUTION  
OF POWER OF ATTORNEY UNDER 37 C.F.R. §1.36**

Dear Sir:

Pursuant to 37 C.F.R. §1.36, Sun Microsystems, Inc., the applicant and assignee of the patent applications listed on the attached APPENDIX A, revokes all previous powers of attorney in the patent applications listed on the attached APPENDIX A, hereby appoints the following attorneys and/or agents assigned to the Customer Number listed below to prosecute the patent applications listed on the attached APPENDIX A, and to transact all business in the U.S. Patent and Trademark Office connected therewith:

Customer Number 32615

Please direct all correspondence and telephone calls concerning the patent applications listed on the attached APPENDIX A to:

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Further, please change the attorney/docket number corresponding to the patent applications listed in APPENDIX A from the attorney/docket number on file to that indicated on APPENDIX A.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the above-identified applicant.

The undersigned hereby declares that all statements made herein of the undersigned's own knowledge are true, that all statements made on information and belief are believed to be true, and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the sixteen patent applications listed on the attached APPENDIX A or any patents issuing thereon.

Signature: *Devon Grant* Dated: *6/30/08*  
Name: *Devon Grant*  
Title: *Senior Patent Counsel*  
Sun Microsystems, Inc.

## **APPENDIX A**

- 1. Patent Application/Serial No.:** 10/880,928

**Title:** STORE BYPASS L1 TAGS IN A CMT PROCESSOR

**Filed:** 6/30/2004

**Applicant:** Sun Microsystems, Inc.

**Reel/Frame No.:** 015544/0061

**Reference No:** 33227/146001; SUN041197
- 2. Patent Application/Serial No.:** 10/880,918

**Title:** LEVEL 1.5 CACHE IN A FINE GRAIN CMT PROCESSOR

**Filed:** 6/30/2004

**Applicant:** Sun Microsystems, Inc.

**Reel/Frame No.:** 015544/0046

**Reference No:** 33227/149001; SUN041210
- 3. Patent Application/Serial No.:** 11/135,982

**Title:** END-TO-END RESIDUE BASED PROTECTION OF AN EXECUTION PIPELINE

**Filed:** 5/24/2005

**Applicant:** Sun Microsystems, Inc.

**Reel/Frame No.:** 016597/0270

**Reference No:** 33227/151001; SUN050104

4.     **Patent Application/Serial No.:** 11/249,254
- Title:** TRACKING DEPENDENCIES AMONG  
  MEMORY REQUESTS
- Filed:** 10/13/2005
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 017094/0169
- Reference No:** 33227/152001; SUN050337
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5.     **Patent Application/Serial No.:** 10/880,965
- Title:** OUT-OF-ORDER MEMORY  
  TRANSACTION IN A FINE-GRAIN  
  MULTITHREAT/MULTI-CORE  
  PROCESSOR
- Filed:** 6/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015928/0233
- Reference No:** 33227/153001; SUN041215
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6.     **Patent Application/Serial No.:** 60/971,355
- Title:** USE OF EMPHASIS TO EQUALIZE  
  HIGH SPEED SIGNAL QUALITY
- Filed:** 9/11/2007
- Applicant:** Sun Microsystems, Inc.
- Reference No:** 33227/155001; SUN070153-US-PSP

7. **Patent Application/Serial No.:** 09/204,586  
**Patent No.:** 6,205,543  
**Title:** EFFICIENT HANDLING OF A LARGE REGISTER FILE FOR CONTEXT SWITCHING  
**Filed:** 12/3/1998  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 009619/0646  
**Reference No:** 33227/163001; P2612-US
8. **Patent Application/Serial No.:** 09/812,733  
**Patent No.:** 7,010,674  
**Title:** EFFICIENT HANDLING OF A LARGE REGISTER FILE FOR CONTEXT SWITCHING AND FUNCTION CALL RETURNS  
**Filed:** 3/19/2001  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 009619/0646  
**Reference No:** 33227/163002; P2612-US-CNT-0
9. **Patent Application/Serial No.:** 11/369,212  
**Title:** PROCESS WITH REGISTER DIRTY BIT TRACKING FOR EFFICIENT CONTEXT SWITCH  
**Filed:** 3/6/2006  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 009619/0646  
**Reference No:** 33227/163003; P2612-US-CNT-1

**10. Patent Application/Serial No.:** 12/035,828

**Title:** COMPLIER FRAMEWORK FOR  
SPECULATIVE AUTOMATIC  
PARALLELIZATION WITH  
TRANSACTIONAL MEMORY

**Filed:** 2/22/2008

**Applicant:** Sun Microsystems, Inc.

**Reel/Frame No.:** 020562/0146

**Reference No:** 33227/157001; SUN070265-US-NP

**11. Patent Application/Serial No.:** 09/565,976

**Patent No.:** 7,360,028

**Title:** EXPLICIT STORE-TO-  
INSTRUCTIONS-SPACE  
INSTRUCTION FOR SELF-  
MODIFYING CODE AND ENSURING  
MEMORY COHERENCE BETWEEN  
INSTRUCTION CACAHE AND  
SHARED MEMORY USING A NO-  
SNOOP

**Filed:** 5/5/2000

**Applicant:** Sun Microsystems, Inc.

**Reel/Frame No.:** 010791/0345

**Reference No:** 33227/165001; P2605-US-NP0

- 12. Patent Application/Serial No.:** 08/884,252
- Patent No.:** 5,946,685
- Title:** A GLOBAL MOUNT MECHANISM  
USED IN MAINTAINING A GLOBAL  
NAME SPACE UTILIZING A  
DISTRIBUTED LOCKING  
MECHANISM
- Filed:** 6/27/1997
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 8668/0080
- Reference No:** 33227/166001; P1945
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- 13. Patent Application/Serial No.:** 10/882,806
- Patent No.:** 7,366,829
- Title:** TLB TAG PARITY CHECKING  
WITHOUT SAME READ
- Filed:** 6/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015544/0327
- Reference No:** 33227/170001; SUN041198
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- 14. Patent Application/Serial No.:** 09/411,470
- Patent No.:** 6,704,822
- Title:** ARBITRATION PROTOCOL FOR A  
SHARED DATA CACHE
- Filed:** 10/1/1999
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 010571/0762
- Reference No:** 33227/171001; P2627

15. **Patent Application/Serial No.:** 10/833,383
- Title:** ENFORCING REGISTER  
DEPENDENCIES IN MIXED  
PRECISION CODE ON OUT-OF-  
ORDER PROCESSOR  
ARCHITECTURES
- Filed:** 4/28/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015276/0250
- Reference No:** 33227/173001; SUN040621-US-NP
16. **Patent Application/Serial No.:** 10/880,985
- Title:** OPTIMIZING HARDWARE TLB  
RELOAD PERFORMANCE IN A  
HIGHLY-THREADED PROCESSOR  
WITH MULTIPLE PAGE SIZES
- Filed:** 6/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016299/0364
- Reference No:** 33227/174001; SUN041227
17. **Patent Application/Serial No.:** 10/882,807
- Title:** HANDLING CACHE MISSES BY  
SELECTIVELY FLUSHING THE  
PIPELINE
- Filed:** 6/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015544/0431
- Reference No:** 33227/175001; SUN041237-US-NP



- 18. Patent Application/Serial No.:** 10/844,931
- Title:** VERSATILE REGISTER FILE DESIGN  
FOR A MULIT-THREADED  
PROCESSOR UTLIZING DIFFERENT  
MODES AND REGISTER WINDOWS
- Filed:** 5/13/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015331/0190
- Reference No:** 33227/176001; SUN030329-US-NP
- 19. Patent Application/Serial No.:** 10/872,133
- Title:** DISTRIBUTED INSTRUCTION PICK-  
LOGIC
- Filed:** 6/18/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015542/0550
- Reference No:** 33227/177001; SUN030185
- 20. Patent Application/Serial No.:** 11/145,397
- Title:** END-TO-END RESIDUE-BASED  
PROTECTION OF AN EXECUTION  
PIPELINE THAT SUPPORTS  
FLOATING POINT OPEATIONS
- Filed:** 6/3/2005
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016664/0259
- Reference No:** 33227/178001; SUN050209-US-NP

21. **Patent Application/Serial No.:** 12/046,365
- Title:** VALUE PREDICTABLE VARIABLE  
SCOPING FOR SPECULATIVE  
AUTOMATIC PARALLELIZATION  
WITH TRANSACTIONAL MEMORY
- Filed:** 3/11/2008
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 020643/0663
- Reference No:** 33227/179001; SUN070263-US-NP
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22. **Patent Application/Serial No.:** 11/777,883
- Title:** A CROSS-THREAD METHOD FOR  
REDUCING THE NUMBER OF  
RUNTIME DATA RACE DETECTION  
CHECKS
- Filed:** 7/13/2007
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 019558/0804
- Reference No:** 33227/180001; SUN060860-US-NP
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23. **Patent Application/Serial No.:** 11/015,055
- Title:** METHOD AND APPARATUS FOR  
SCHEDULING MULTIPLE THREADS  
FOR EXECUTION IN A SHARED  
MICROPROCESSOR PIPELINE
- Filed:** 12/17/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016110/0908
- Reference No:** 33227/172001; SUN041484-US-NP

- 24. Patent Application/Serial No.:** 11/209,124
- Title:** RESIDUE-BASED ERROR  
DETECTION FOR A SHIFT  
OPERATION
- Filed:** 8/22/2005
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016900/0650
- Reference No:** 33227/181001; SUN050168-US-NP
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- 25. Patent Application/Serial No.:** 11/530,799
- Title:** OFFLOADING OPERATIONS FOR  
MAINTAINING DATA COHERENCE  
ACROSS A PLURALITY OF NODES
- Filed:** 9/11/2006
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 018300/0977
- Reference No:** 33227/182001; SUN050742-US-NP
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- 26. Patent Application/Serial No.:** 11/601,115
- Title:** REAL TIME MONITORING AND  
TRACING OF SCHEDULER  
DECISIONS
- Filed:** 11/16/2006
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 018659/0620
- Reference No:** 33227/183001; SUN061146-US-NP

- 27. Patent Application/Serial No.:** 11/124,854
- Title:** HARDWARE VIRUTAL-TO-PHYSICAL TABLEWORK IN A FINE-GRAINED MULTITHREADED, MULTICORE PROCESSOR
- Filed:** 5/9/2005
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016545/0822
- Reference No:** 33227/185001; SUN041207-US-NP
- 28. Patent Application/Serial No.:** 10/881,935
- Title:** EFFICIENT UTILIZATION OF STORE BUFFER
- Filed:** 6/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 015537/0446
- Reference No:** 33227/187001; SUN041209
- 29. Patent Application/Serial No.:** 60/627,817
- Title:** END-TO-END RESIDUE BASED PROTECTION OF AN EXEUTION PIPELINE
- Filed:** 11/15/2004
- Applicant:** Sun Microsystems, Inc.
- Reference No:** 33227/188001; SUN050104-US-PSP

- 30. Patent Application/Serial No.:** 08/662,582  
**Patent No.:** 5,958,042  
**Title:** A GROUPING LOGIC CIRCUIT IN A PIPELINED SUPERSCALAR  
**Filed:** 6/11/1996  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 008052/0437  
**Reference No:** 33227/189001; P1391-US-NP-0
- 31. Patent Application/Serial No.:** 09/625,268  
**Patent No.:** 6,349,381  
**Title:** PIPELINED INSTRUCTION DISPATCH UNIT IN A SUPERSCALAR PROCESSOR  
**Filed:** 7/25/2000  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 008052/0437  
**Reference No:** 33227/189002; P1391-US-DIV-0
- 32. Patent Application/Serial No.:** 09/583,097  
**Title:** GROUPING LOGIC CIRCUIT IN A PIPELINED SUPERSCALAR PROCESSOR  
**Filed:** 8/2/1999  
**Applicant:** Sun Microsystems, Inc.  
**Reel/Frame No.:** 008052/0437  
**Reference No:** 33227/189003; P1391-US-DIV-1

- 33. Patent Application/Serial No.:** 11/131,807
- Title:** RECONSTRUCTING THE FLOW OF  
EXECUTION IN AN OUT-OF-ORDER  
PROCESSOR
- Filed:** 5/18/2005
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016587/0029
- Reference No:** 33227/202001; SUN040580
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- 34. Patent Application/Serial No.:** 10/026,187
- Title:** MULTIPLE CONTEXTS FOR  
EFFICIENT USE OF TRANSLATION  
LOOKASIDE BUFFER
- Filed:** 12/30/2004
- Applicant:** Sun Microsystems, Inc.
- Reel/Frame No.:** 016966/0524
- Reference No:** 33227/186001; SUN041208